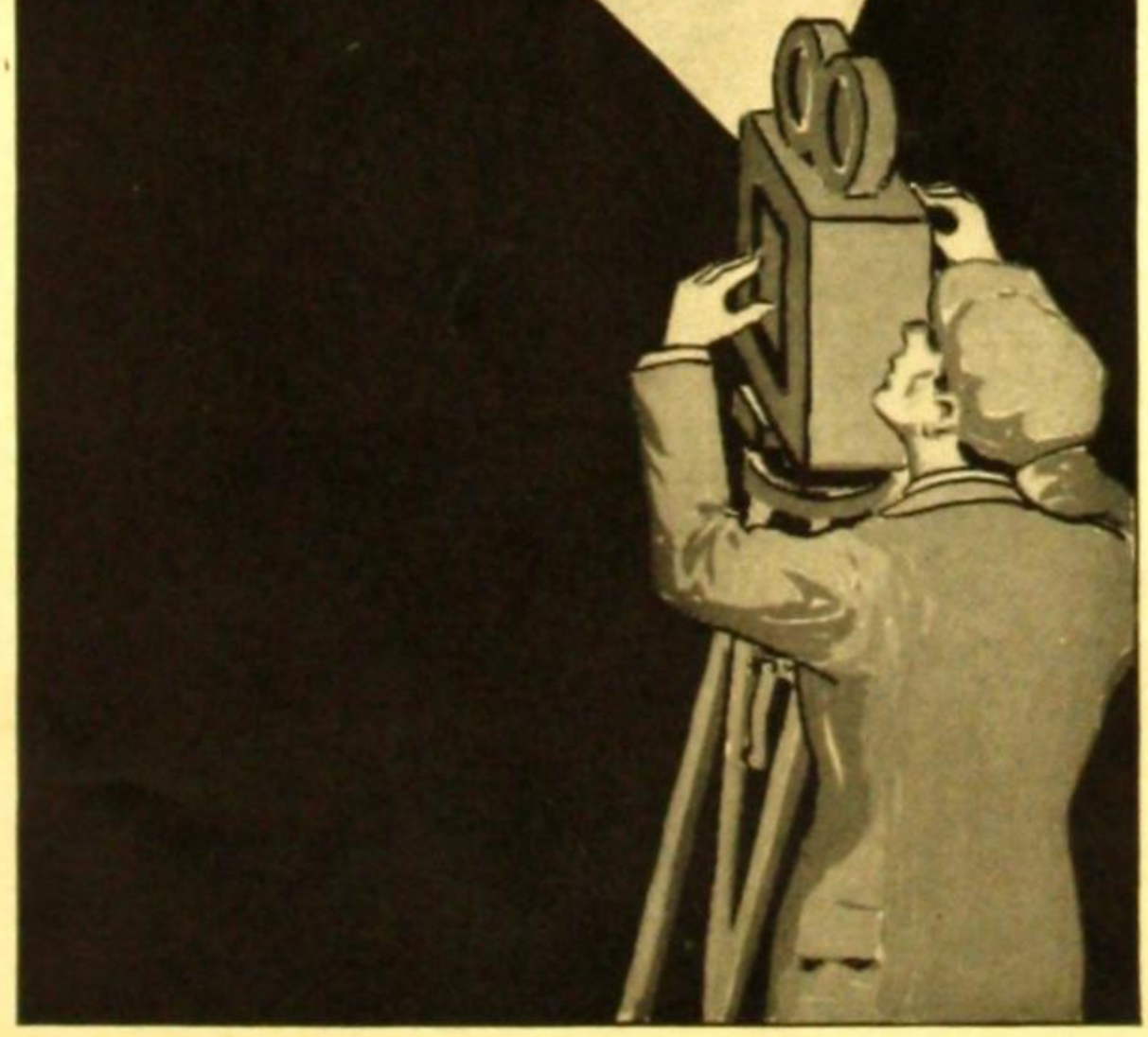
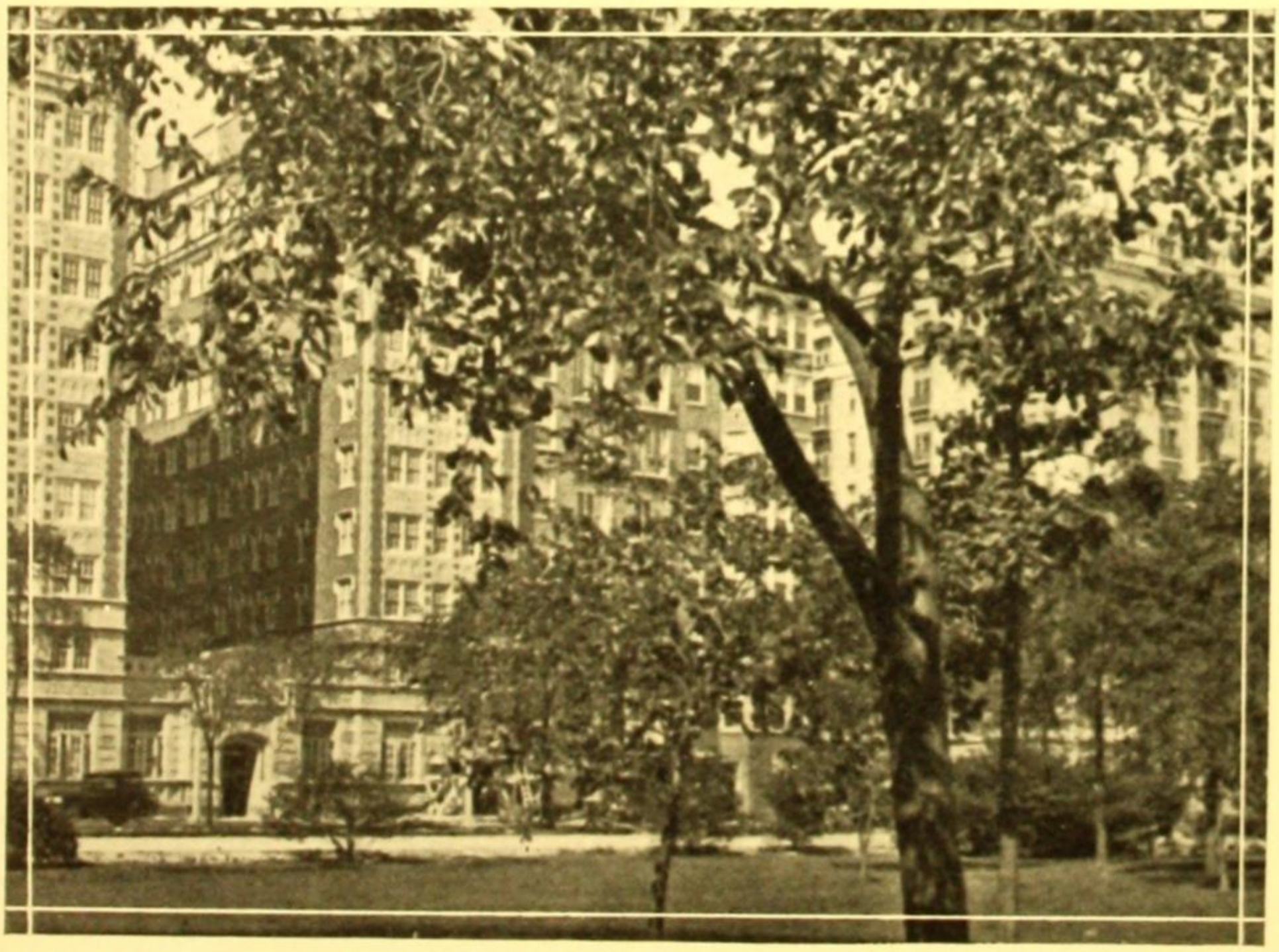
A Moving Picture of VIBROLITHIC CONCRETE CONSTRUCTION

as Built
on Sheridan Road Chicago
by the
LINCOLN PARK COMMISSION
1923

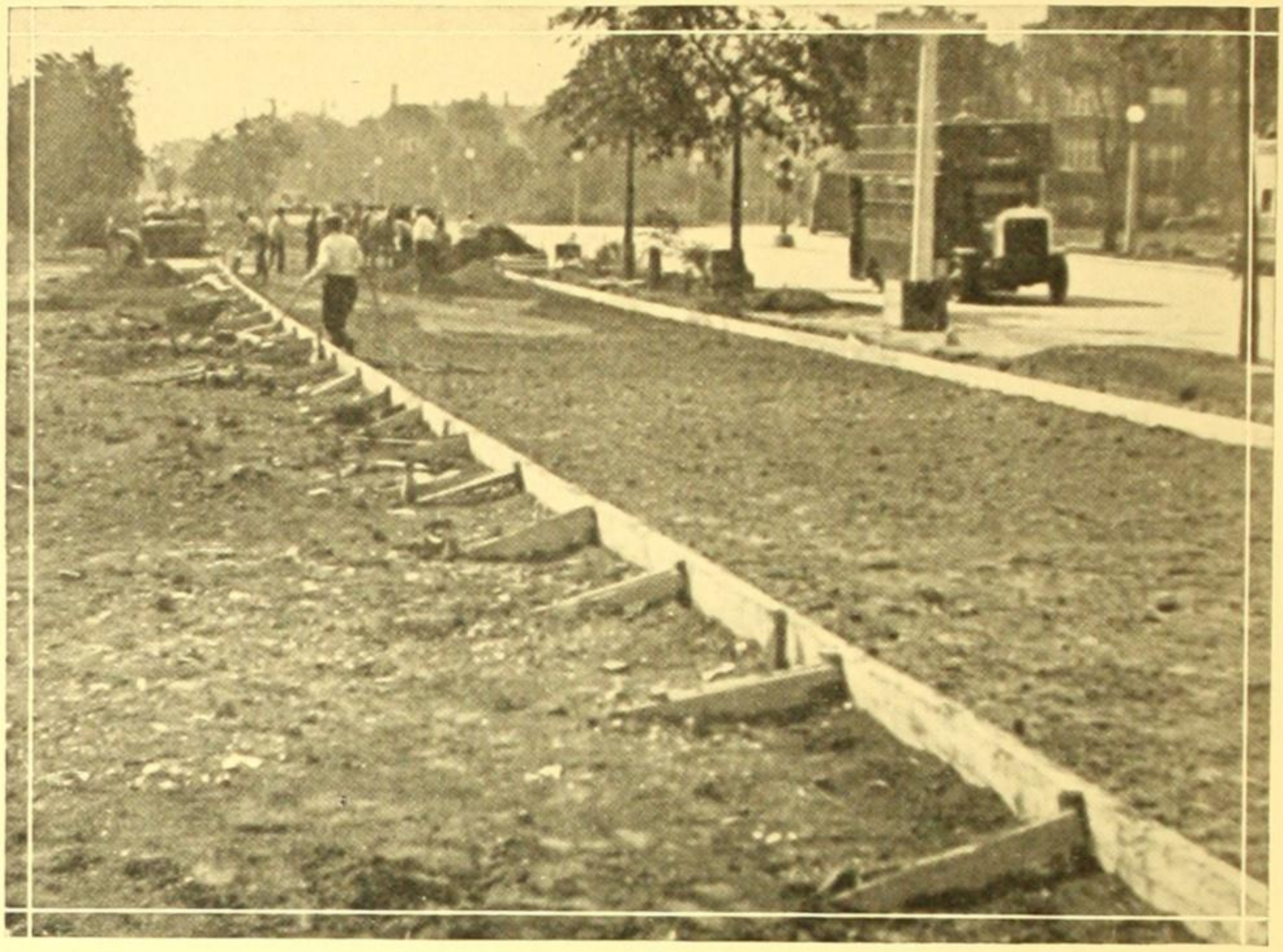


***VIBROLITHIC** is a time-proven method of constructing better concrete streets and highways.*

Vibrolithic is a method of building a Portland Cement concrete Pavement by vibrating the plastic mass into compact slabs having the uniformity and strength of natural stone.

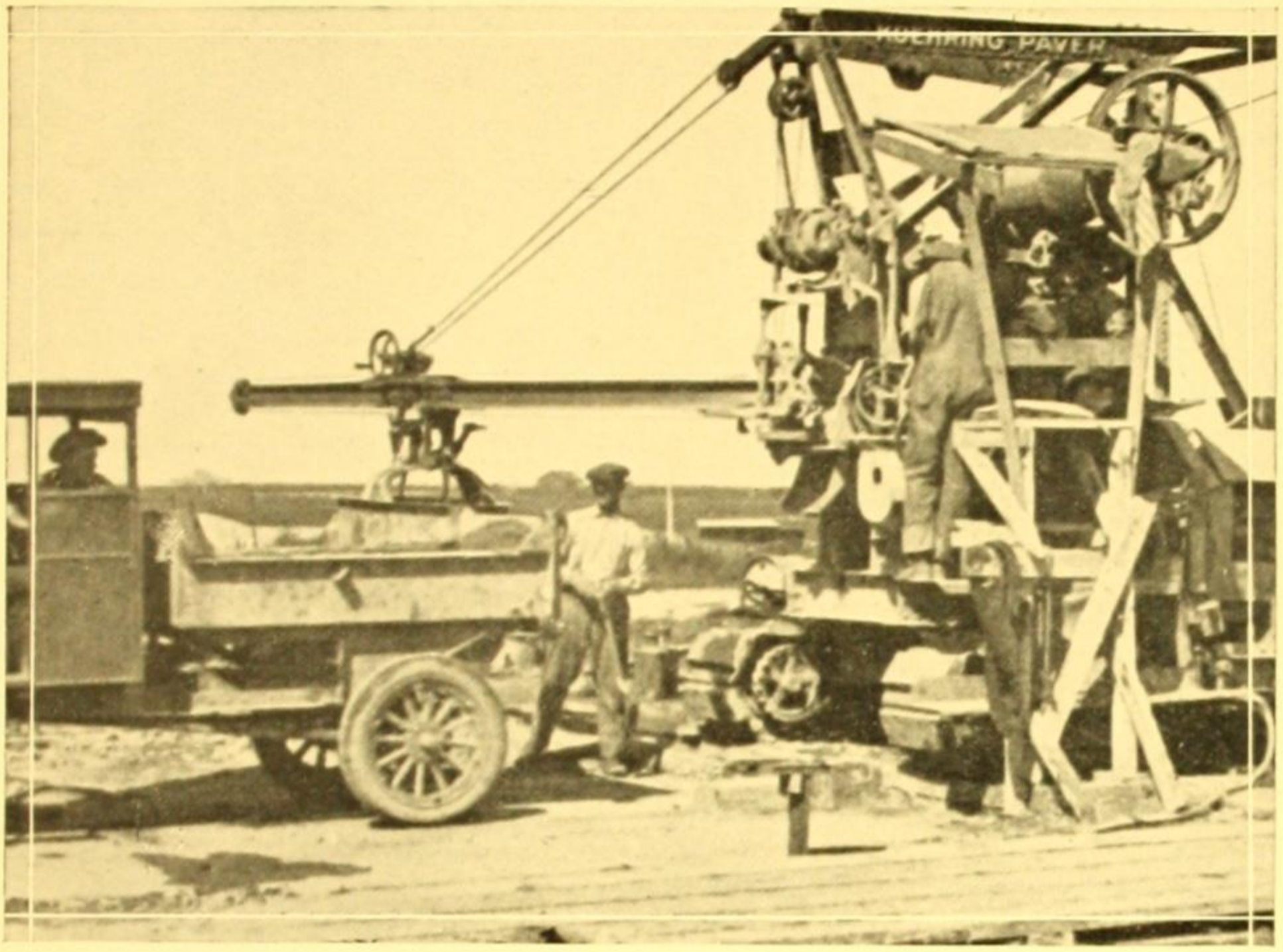


Sheridan Road—Chicago. The second greatest thoroughfare in America.



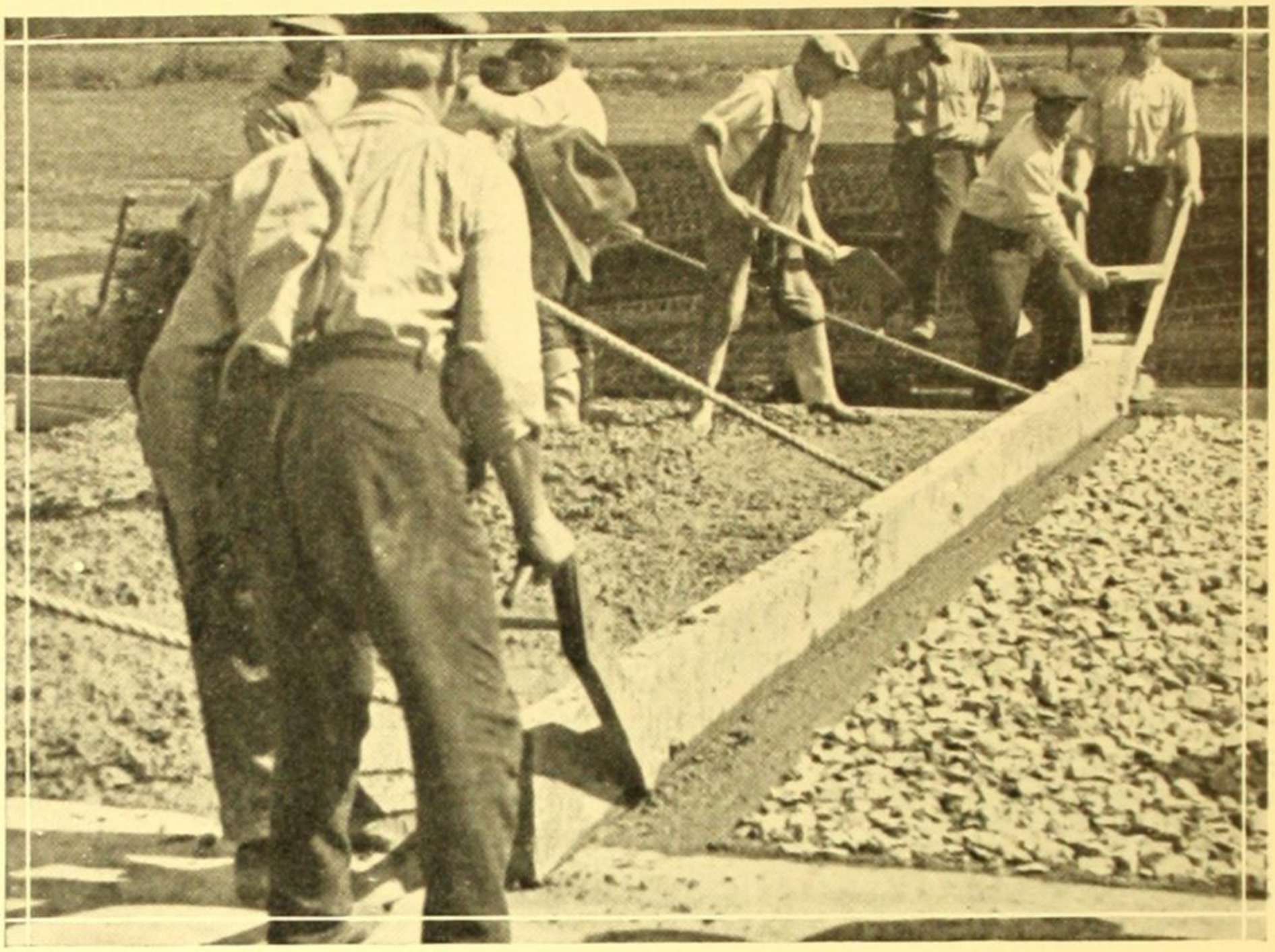
The first step in the construction of Vibrolithic is careful preparation of the grade so that pavement of proper foundation and full thickness is assured. Grade is checked and approved by our supervisor before any concrete is placed.

Proportioning and Mixing Plant. Water, cement, sand, gravel or stone are accurately measured and thoroughly mixed for Vibrolithic. A Vibrolithic inspector is stationed at this plant.

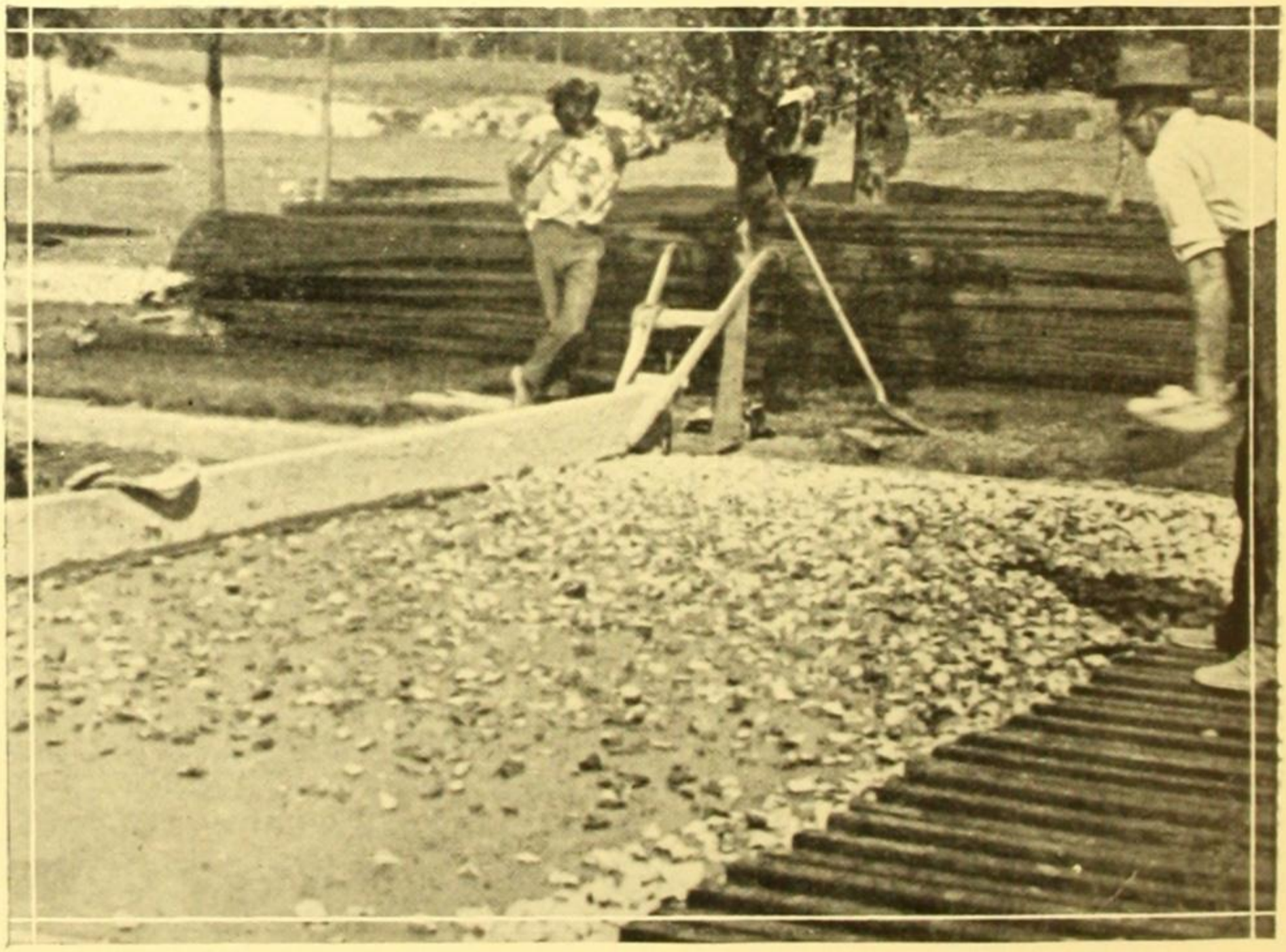


Loading the concrete from mixer into trucks.

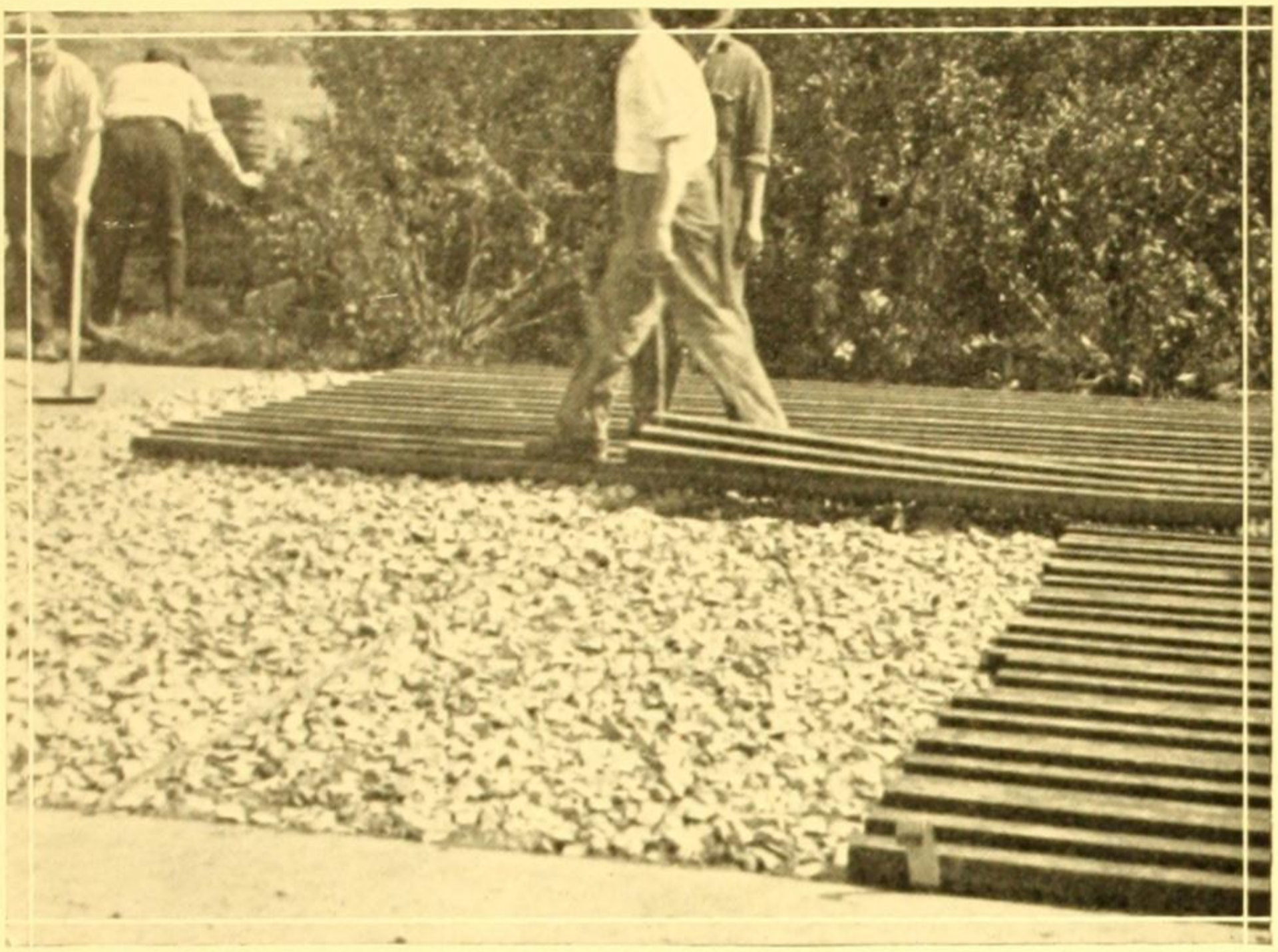
Placing the concrete. Any competent contractor, with standard equipment, can build Vibrolithic. Vibrolithic bids are strictly competitive.



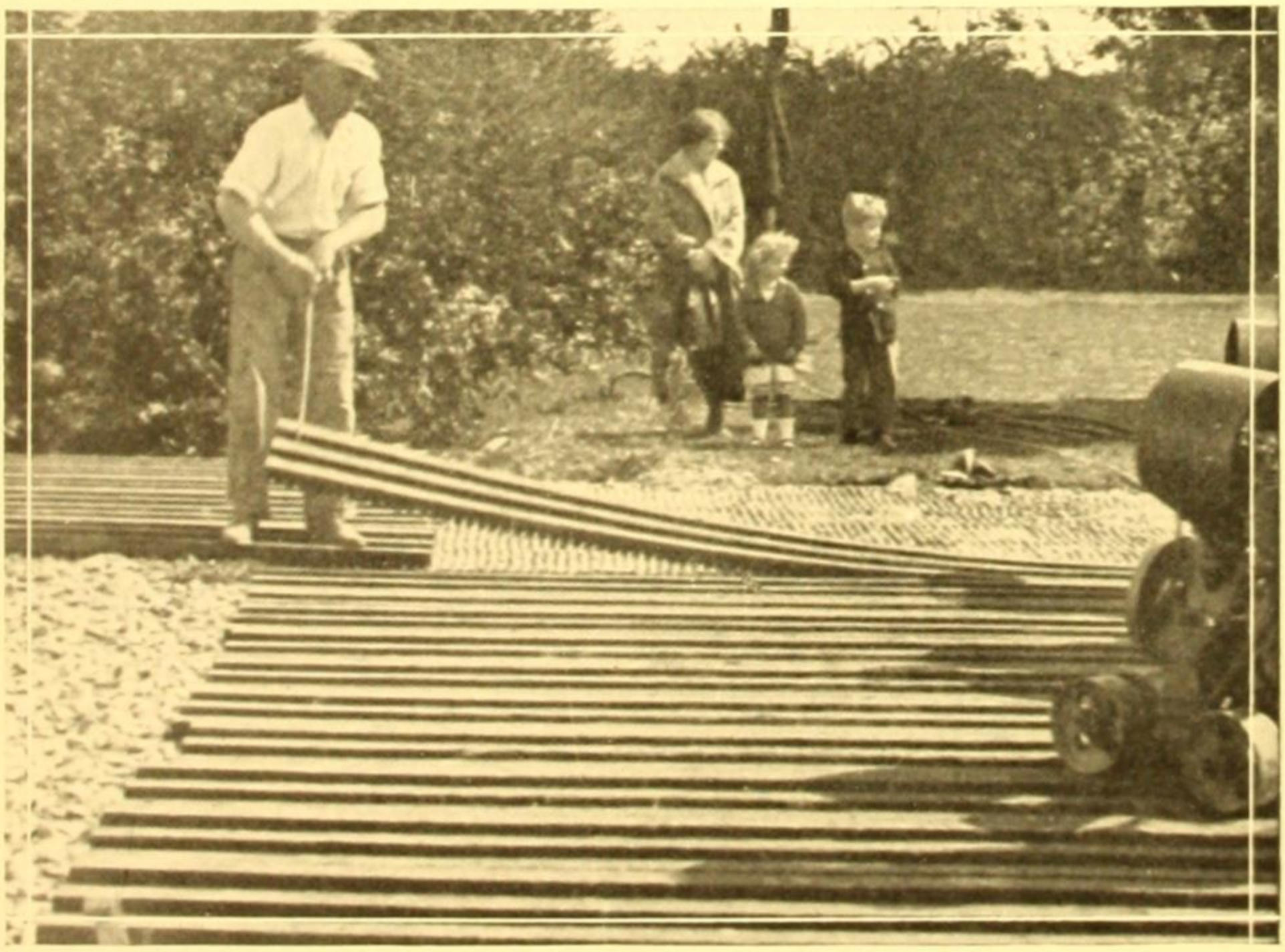
Full thickness of the pavement is further assured and exactness of surface obtained by the use of an accurately gauged "striking template."



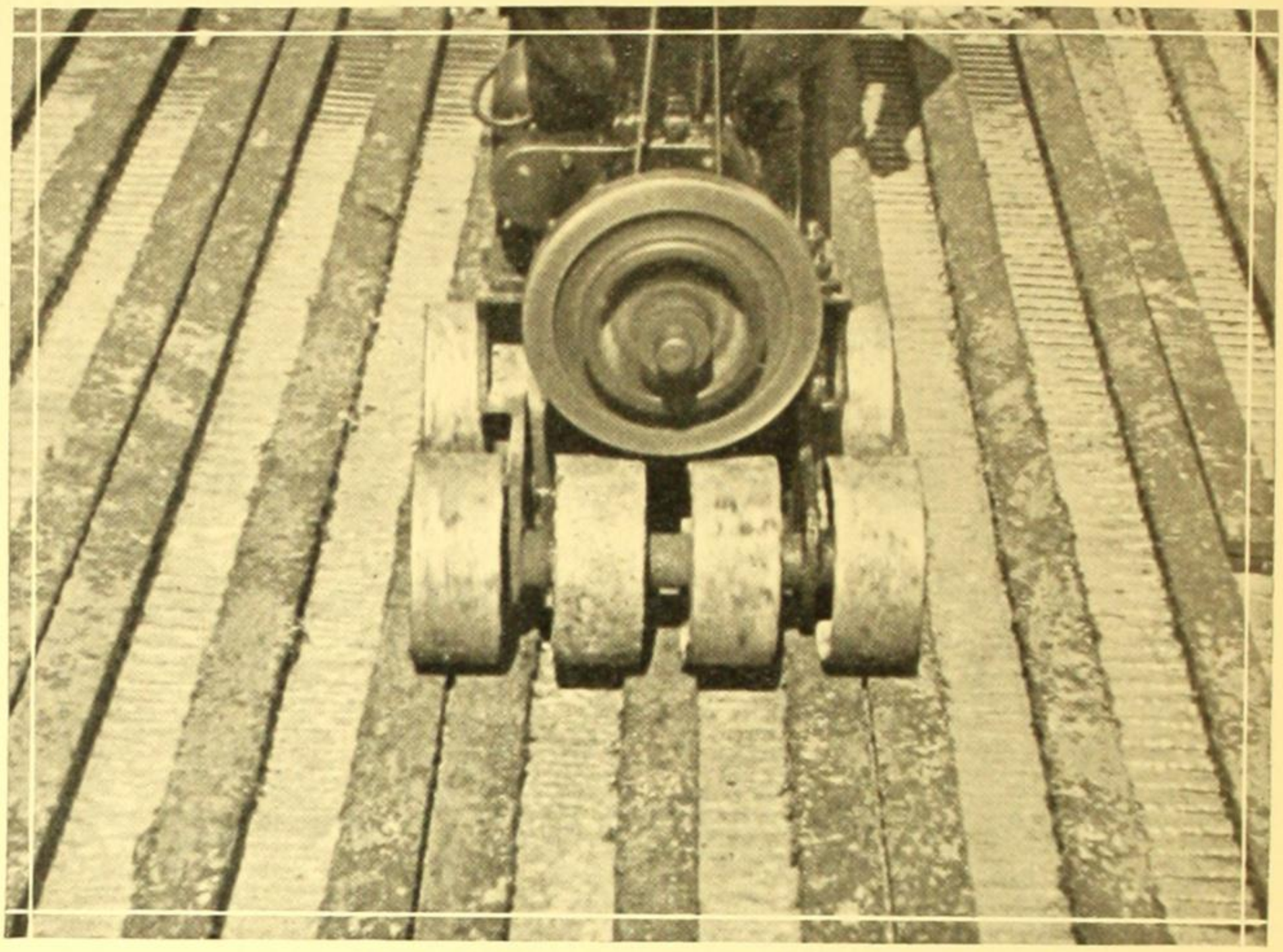
A specified quantity of large clean crushed stone is spread over the struck surface. This stone is the medium through which compaction is obtained. It, as well, becomes the eventual wearing surface of the pavement.



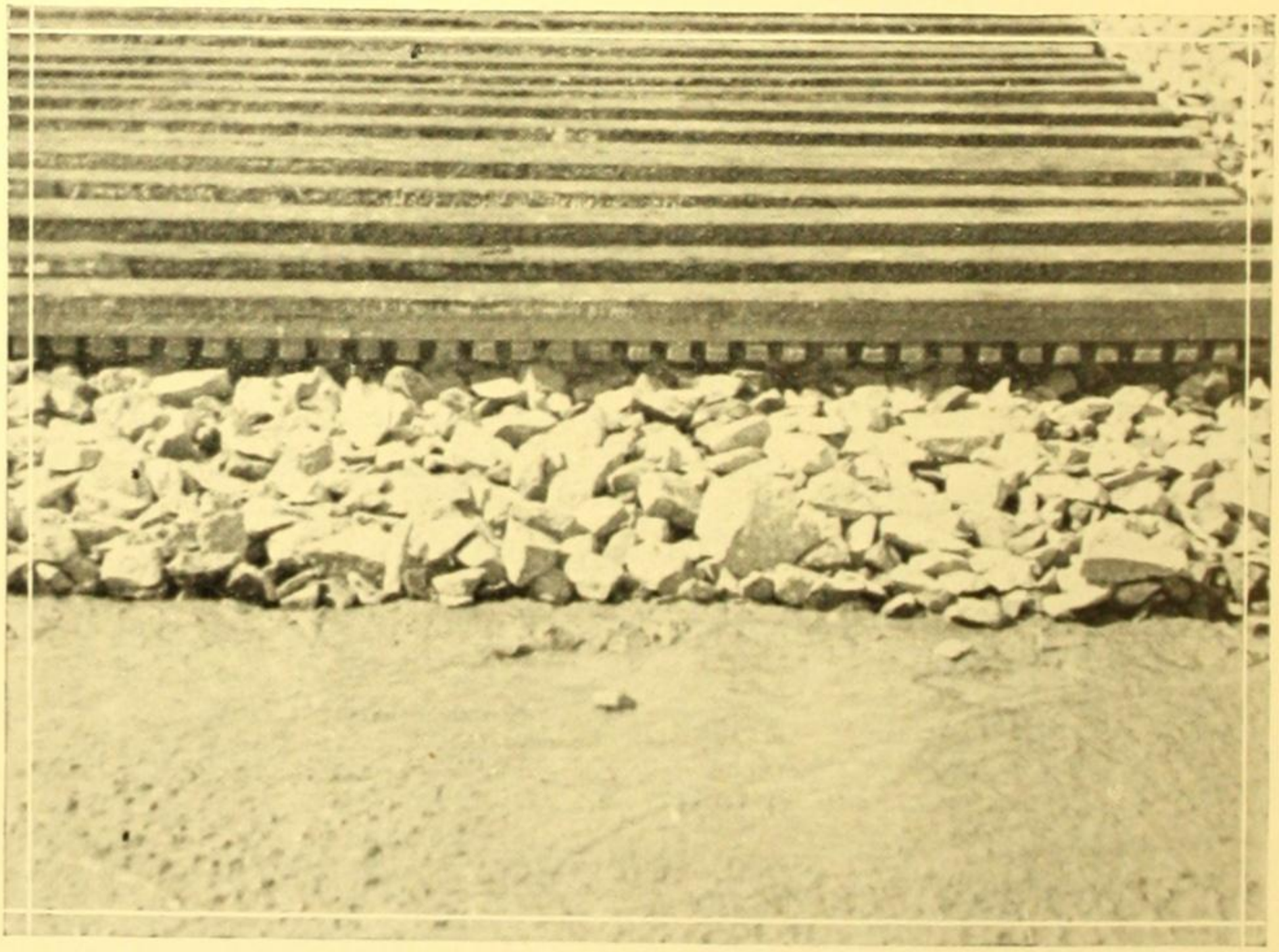
A network of flexible gum wood platforms are placed side by side resting, not on the forms, but on the cast surface stone.



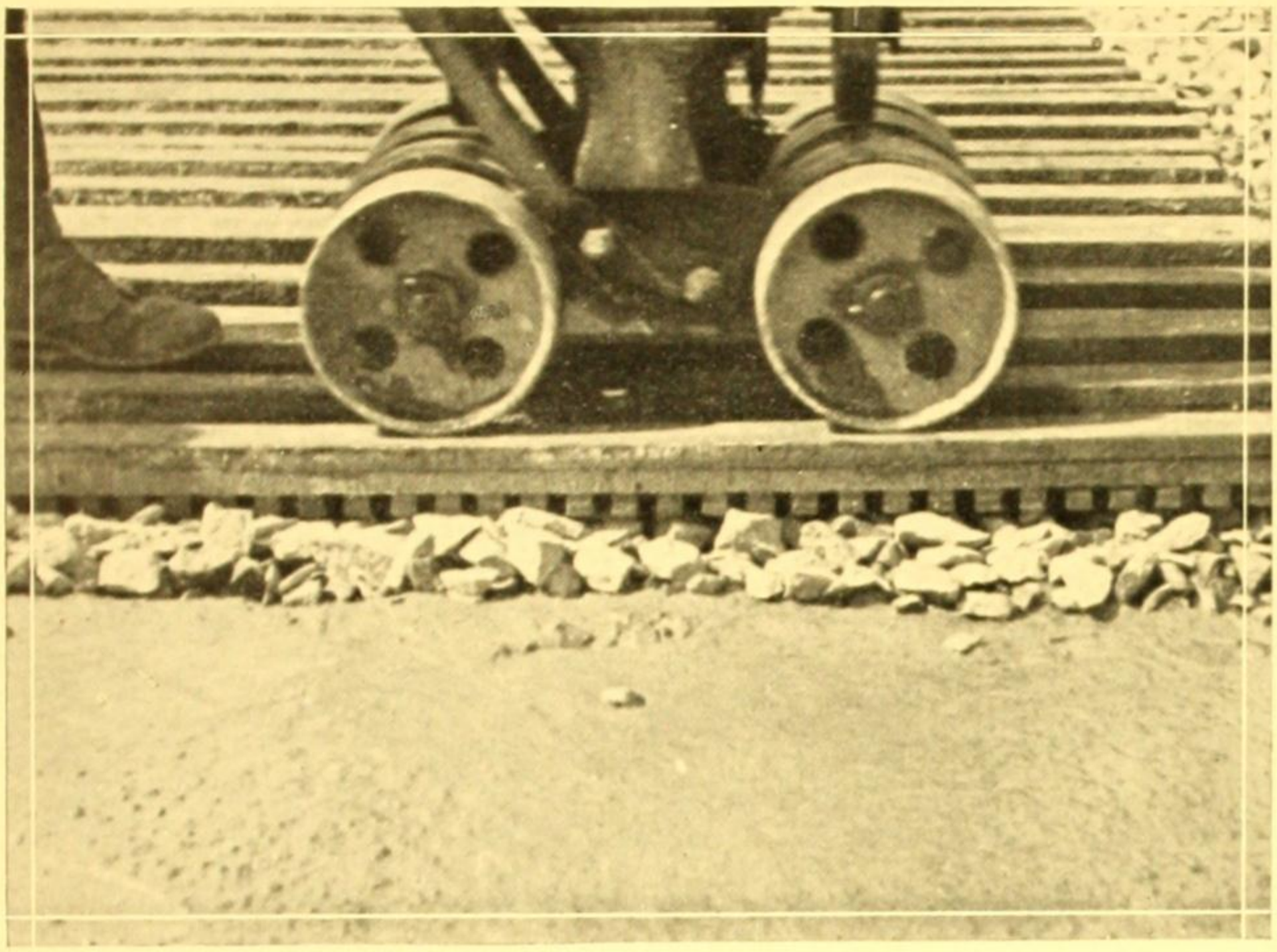
The Vibrators are then operated over the platforms both longitudinally and cross-wise.



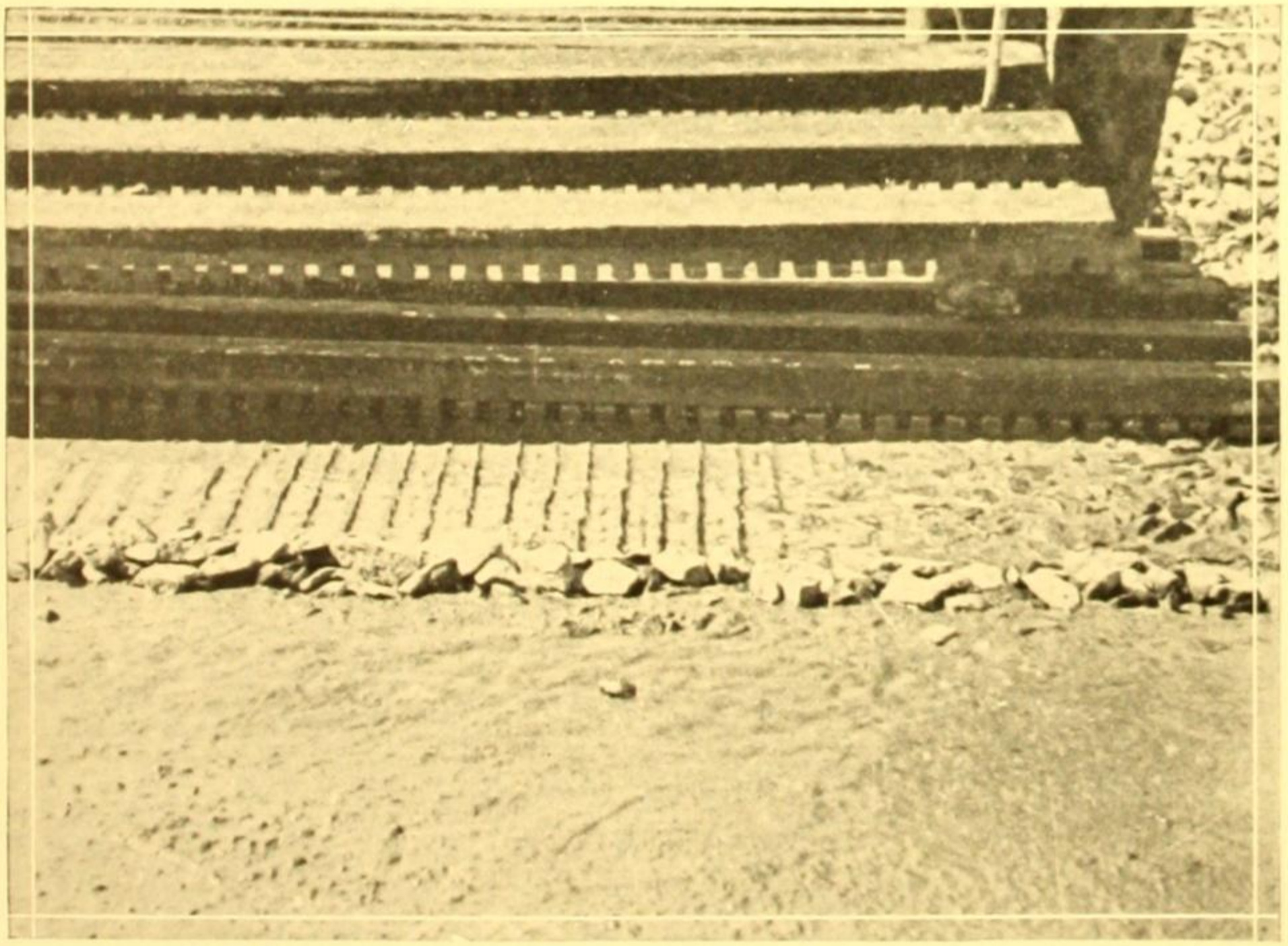
Vibrators at work. These vibrators deliver 1500 impulses a minute, each downward impulse equivalent to a 700 pound blow.



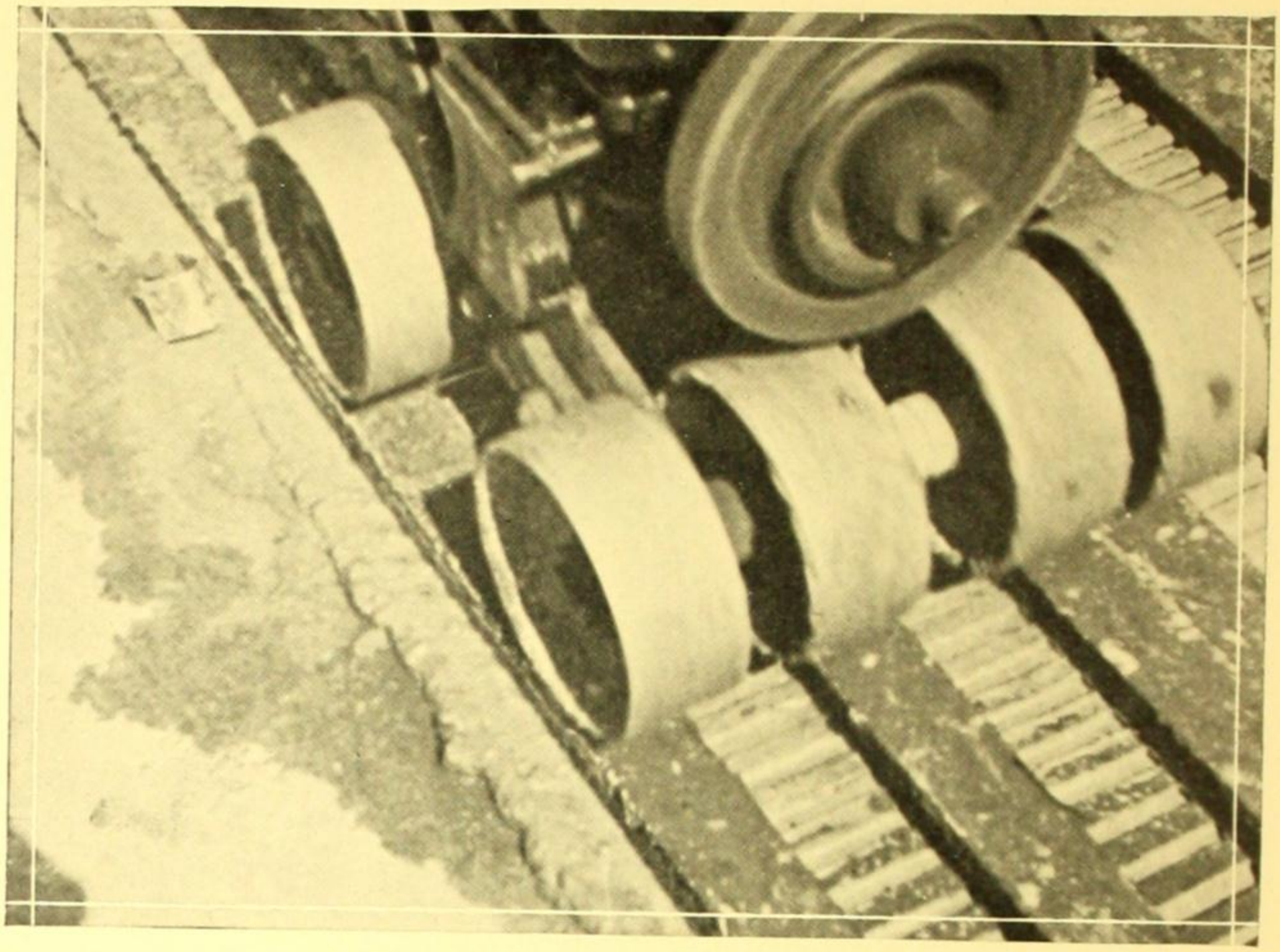
Note that this great quantity of crushed stone is forced into the concrete and made a part thereof without increasing the thickness of the pavement or removing from the concrete any cement or other valuable ingredient of the mixture.



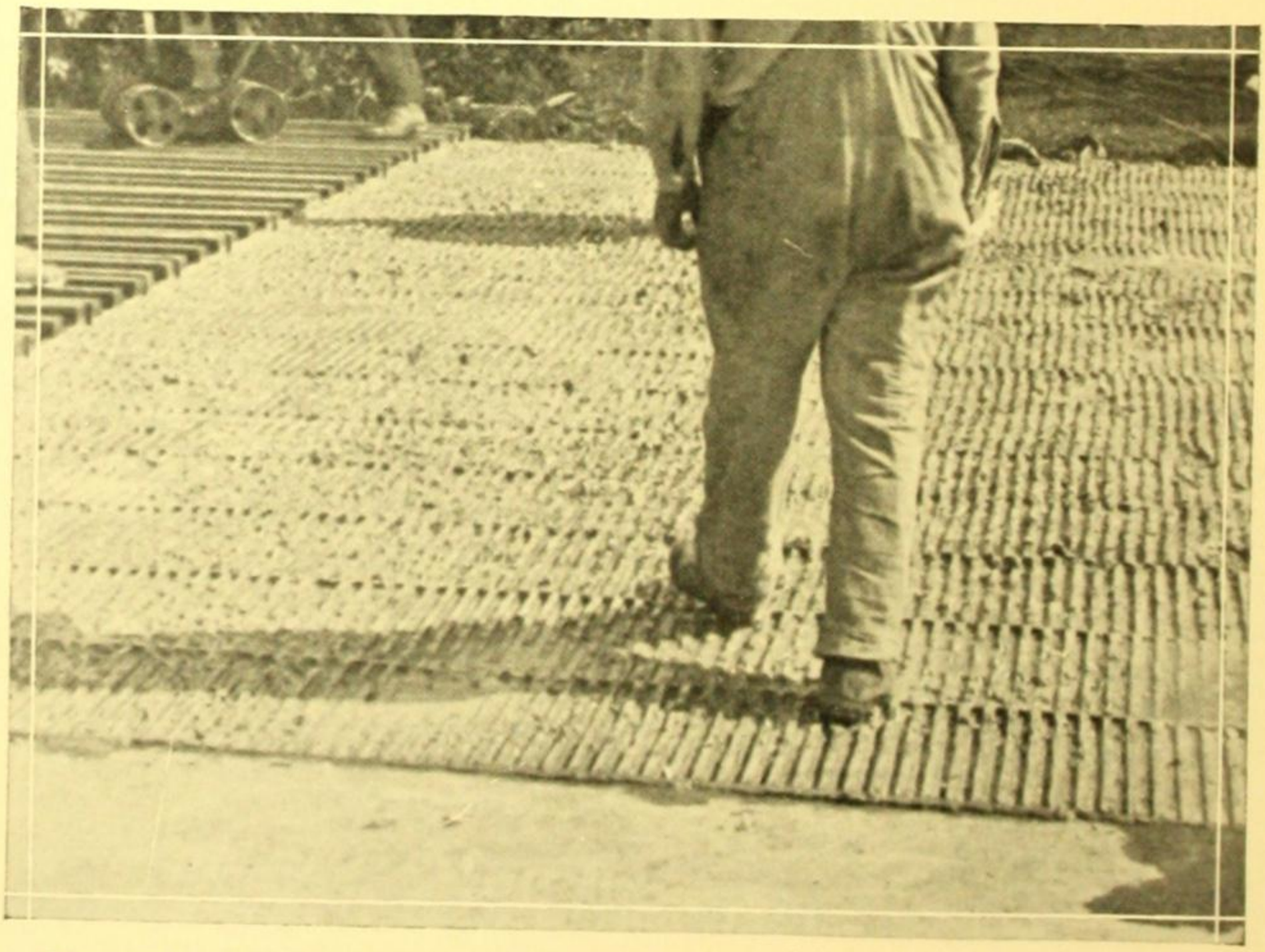
Large stone being forced into the concrete surface and gradually lost to sight under the vibrator working over the platforms.



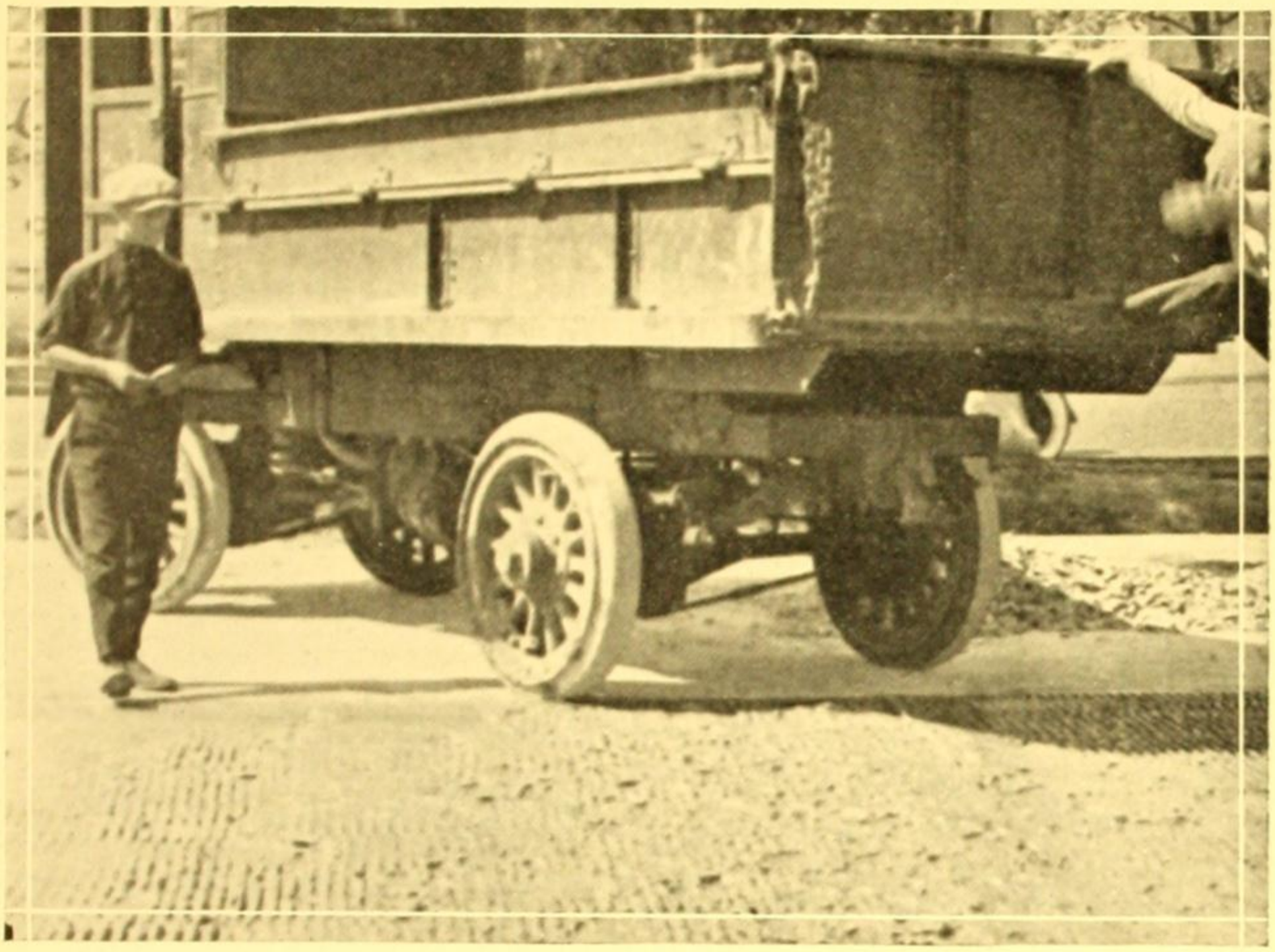
Vibrating Completed—Stone at right will be completely adjusted after platforms are lapped and vibrators reapplied.



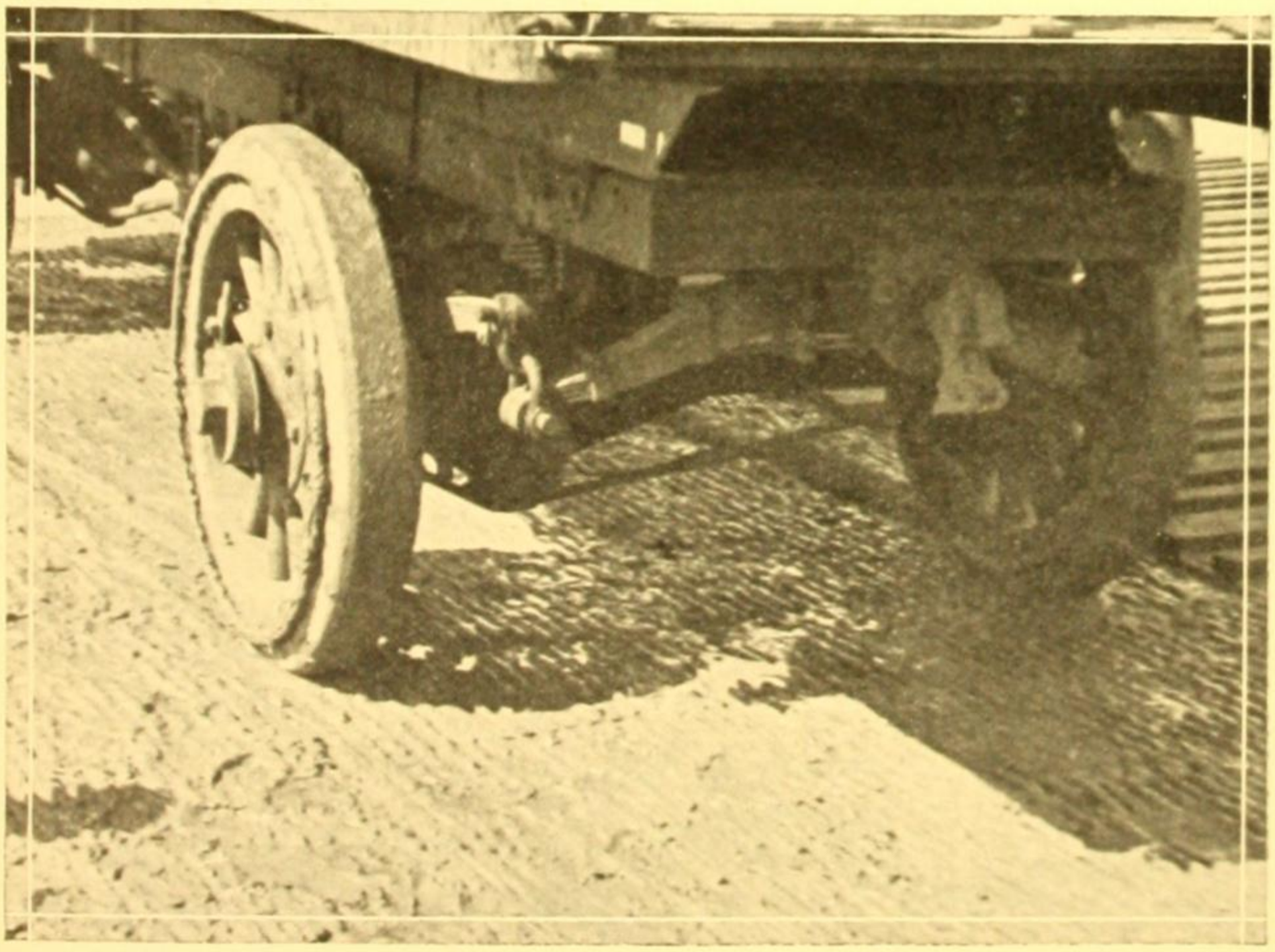
Vibrolithic concrete is maximum strength concrete because it is made uniformly compact throughout every inch of its full depth and area. No weakness remains hidden under the surface of Vibrolithic.



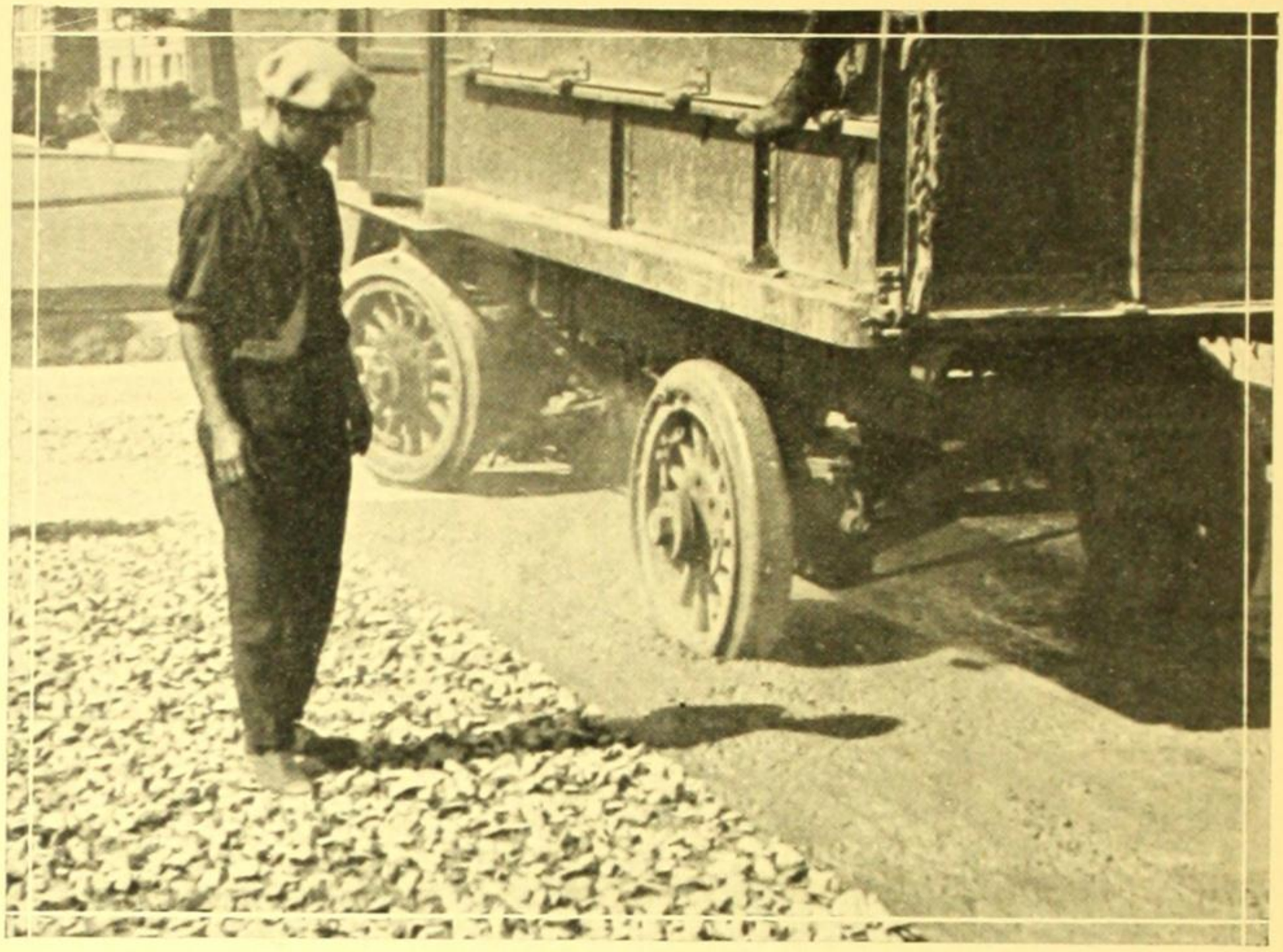
The degree of compactness secured is clearly demonstrated by the workman walking on the concrete.



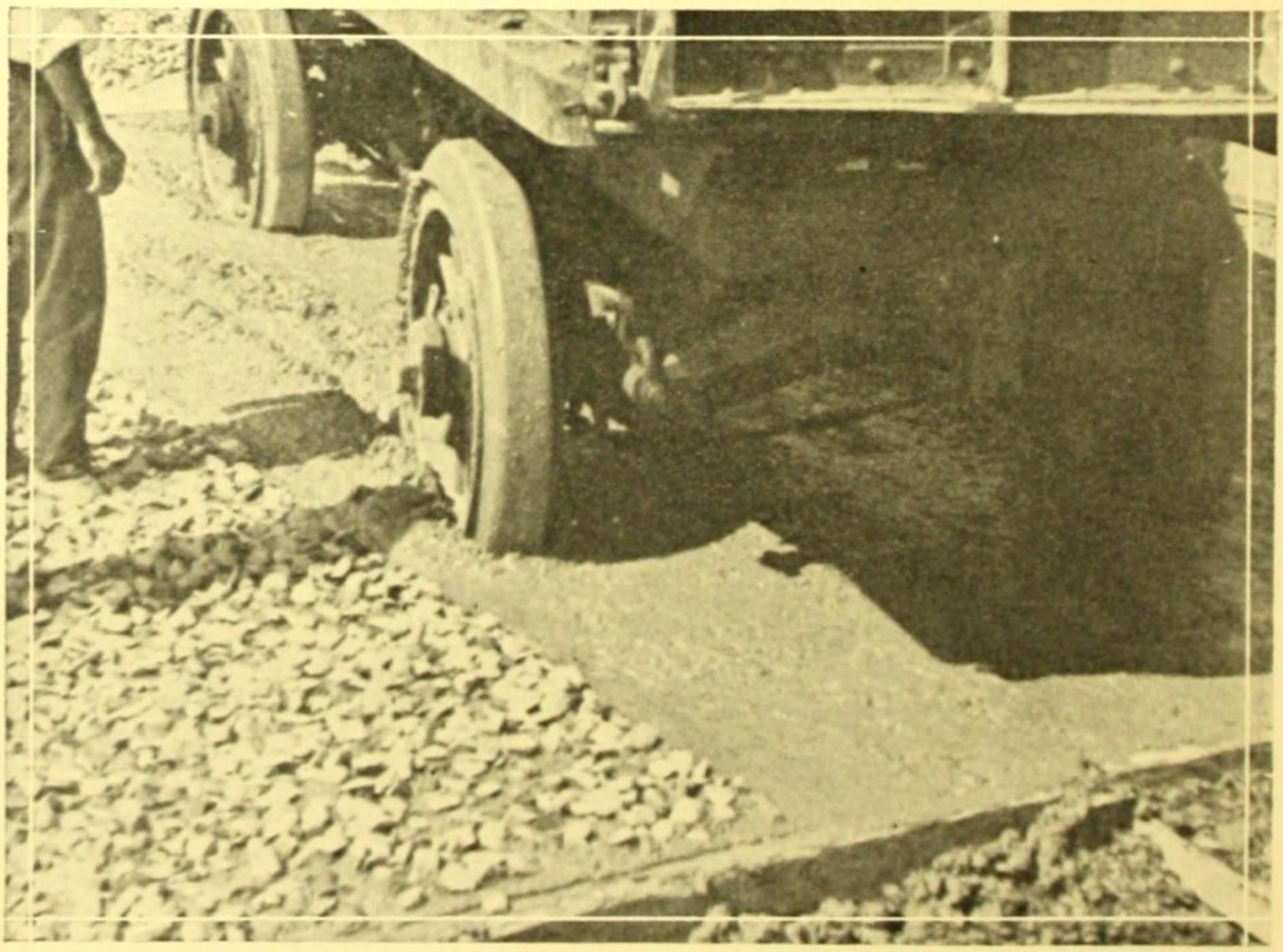
However, a greater test proves the degree of compactness secured by vibrating concrete. A seven ton truck with solid tires backing onto freshly vibrated concrete.



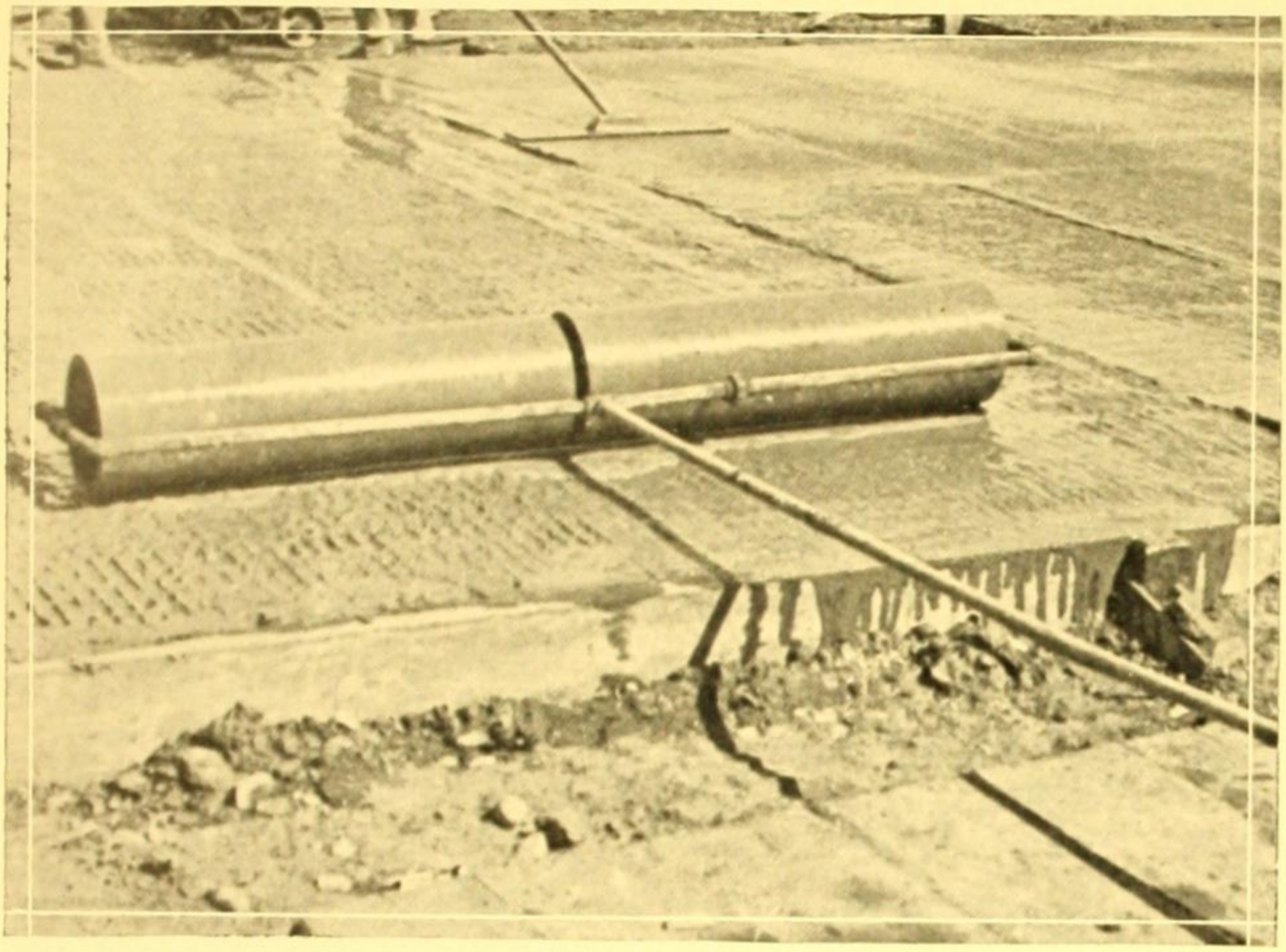
Load easily sustained by fresh vibrated concrete. (Note, only shallow surface mortar is disturbed by tires.)



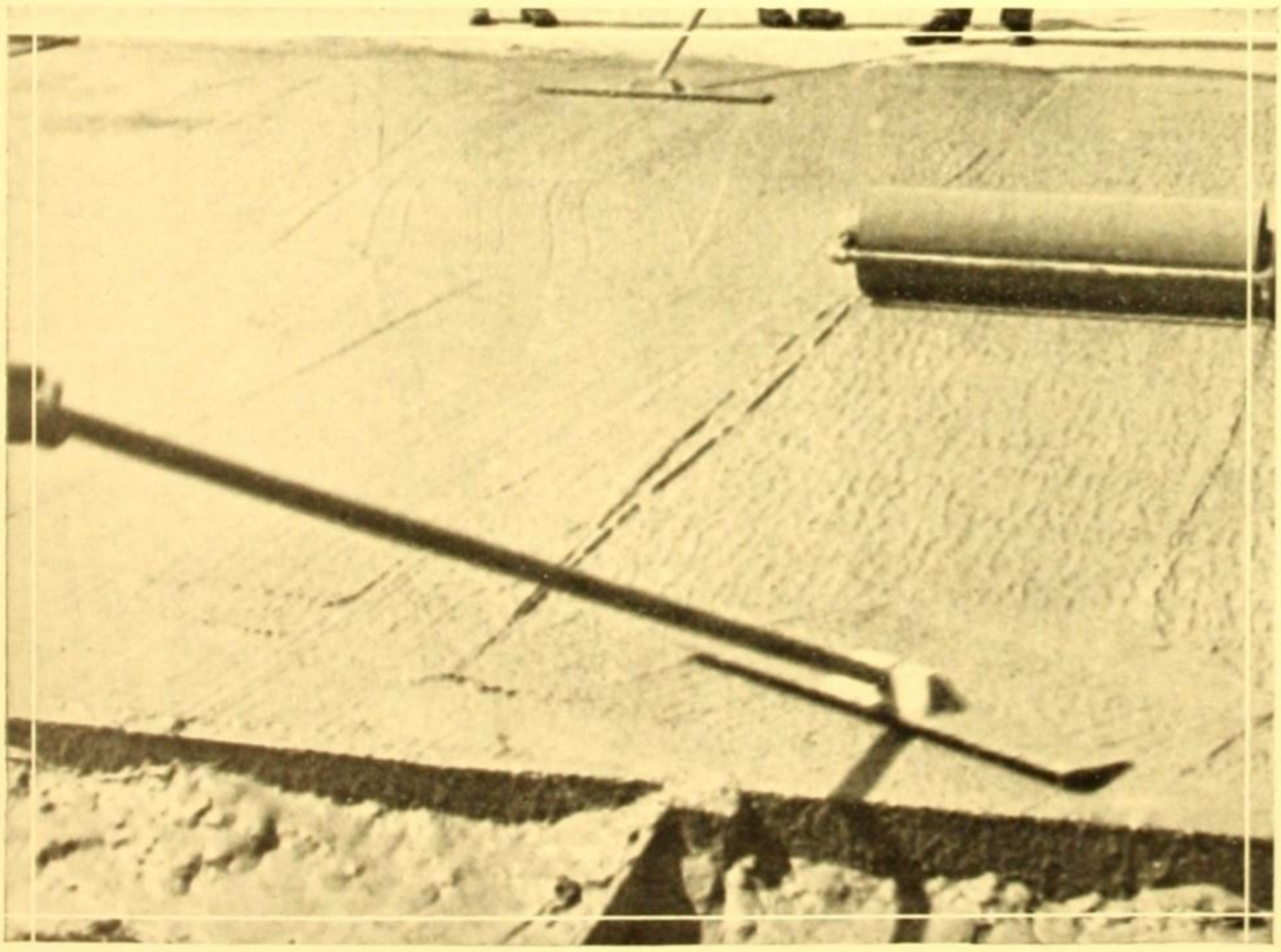
A comparison. Same concrete immediately before it became Vibrolithic, with same truck attempting to back over it.



Truck completely mired in concrete, not vibrated.

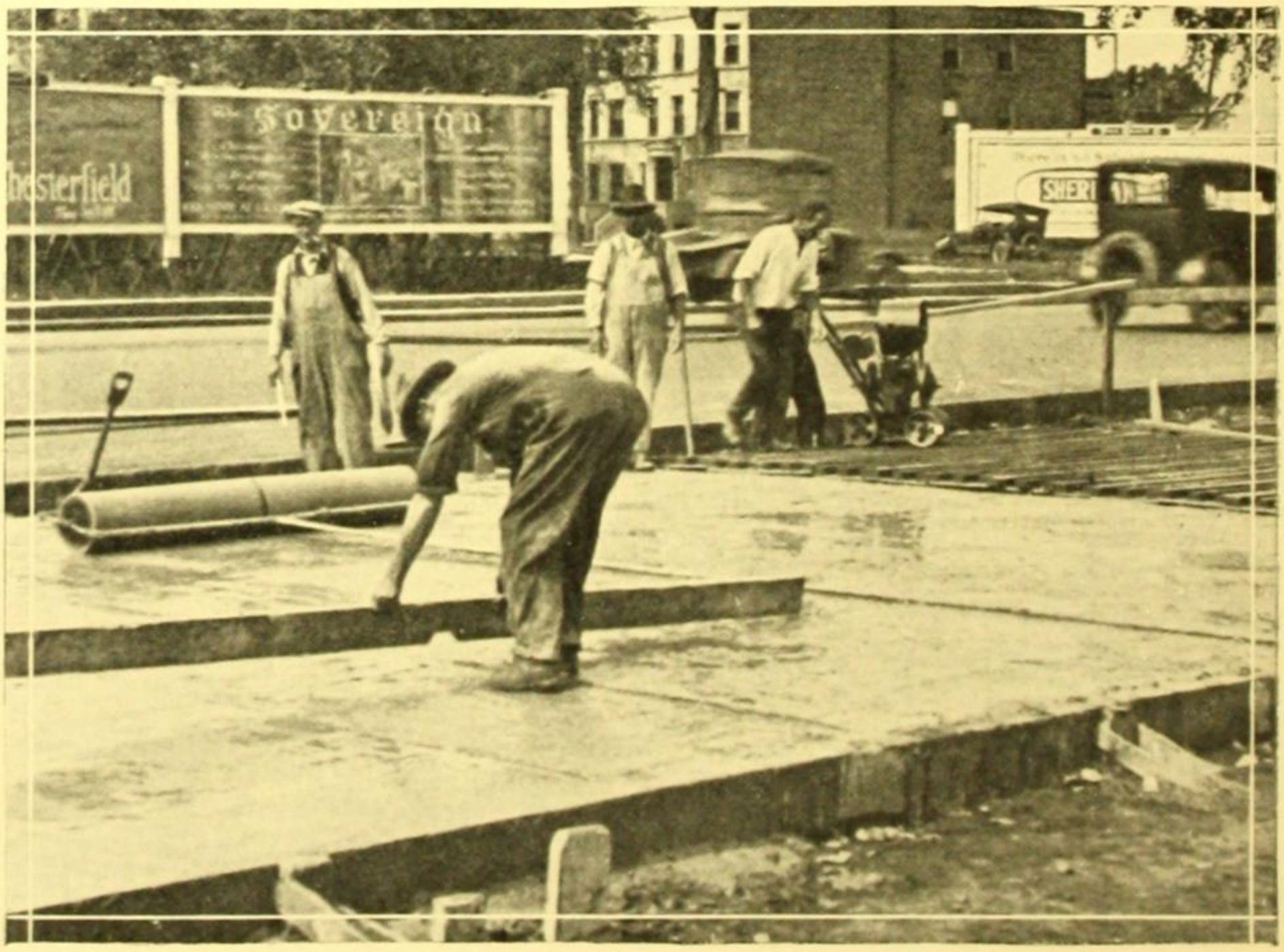


Compacted concrete permits the use of a roller many times heavier than is used to finish ordinary concrete pavements. The heavier the roller the more traffic-proof the surface of concrete becomes.

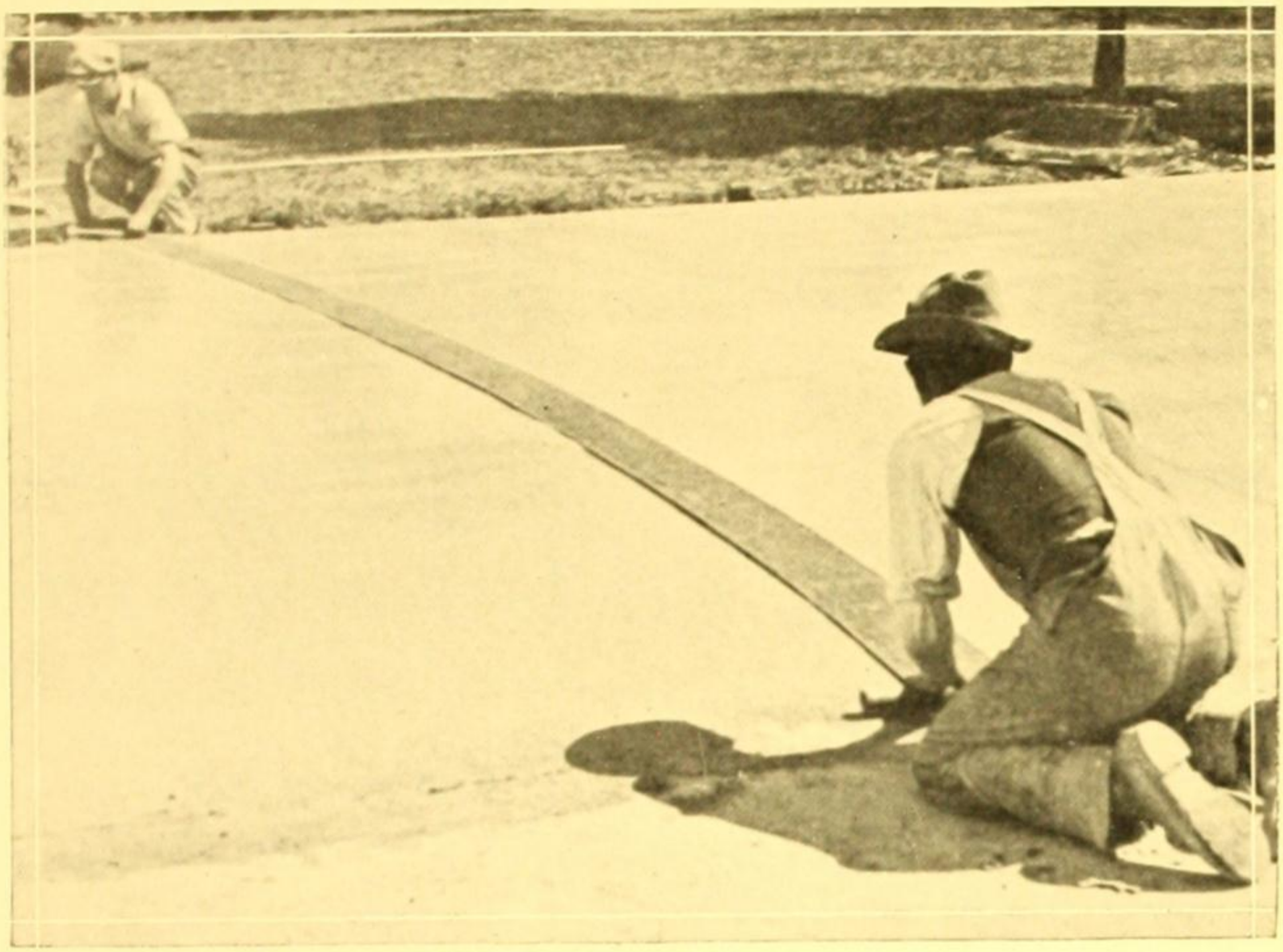


Vibrolithic. The perfect riding pavement. Thoroughly rolled and luted to perfect the surface.

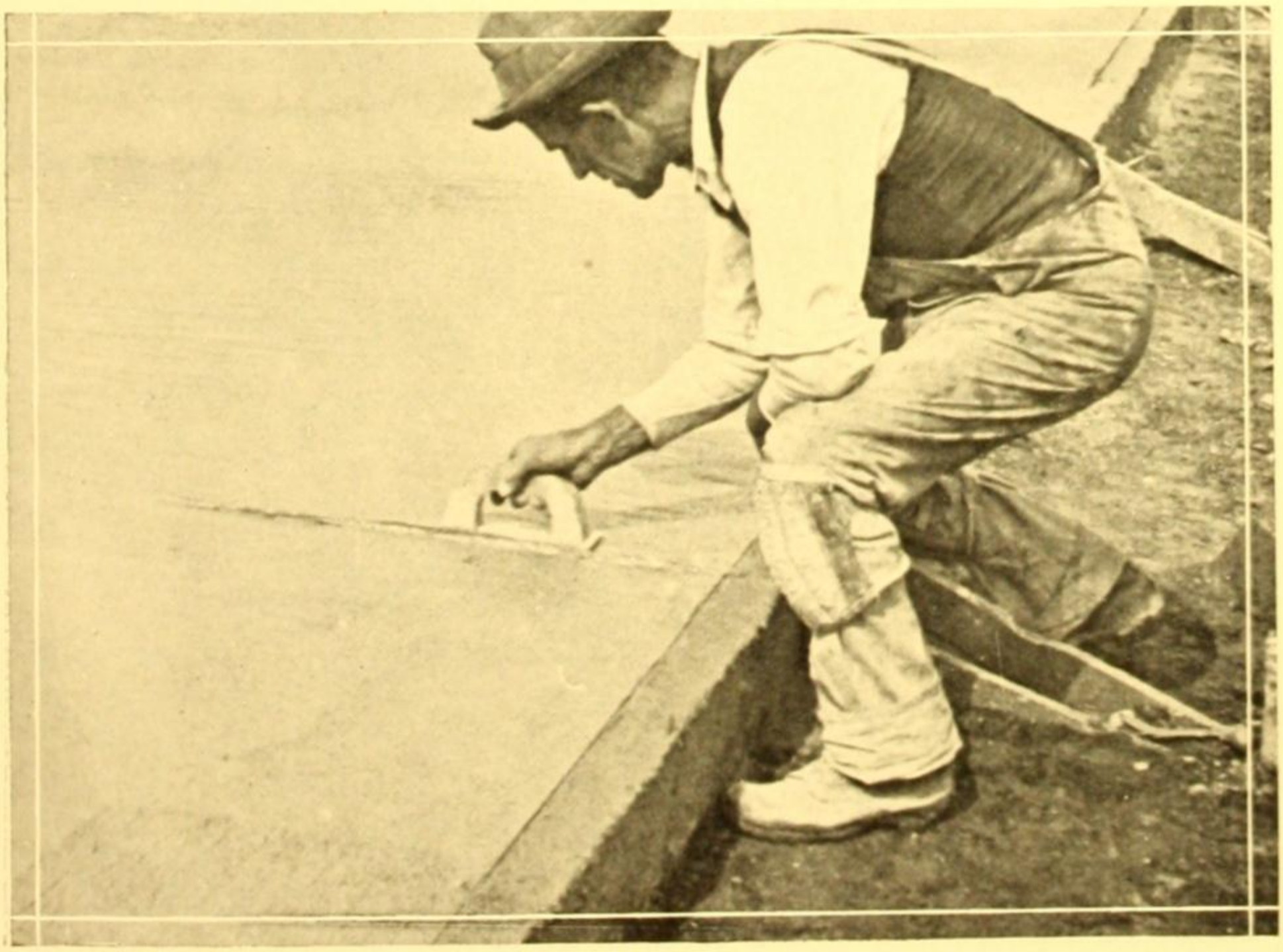
Vibrolithic Supervisor testing trueness of surface. The pavement being made to conform to the rigid specifications of the straight-edge. A most exacting requirement.



The uncertain "human element" which produces the rougher riding pavements is eliminated in Vibrolithic construction, as perfection of surface is obtained by mechanical means.



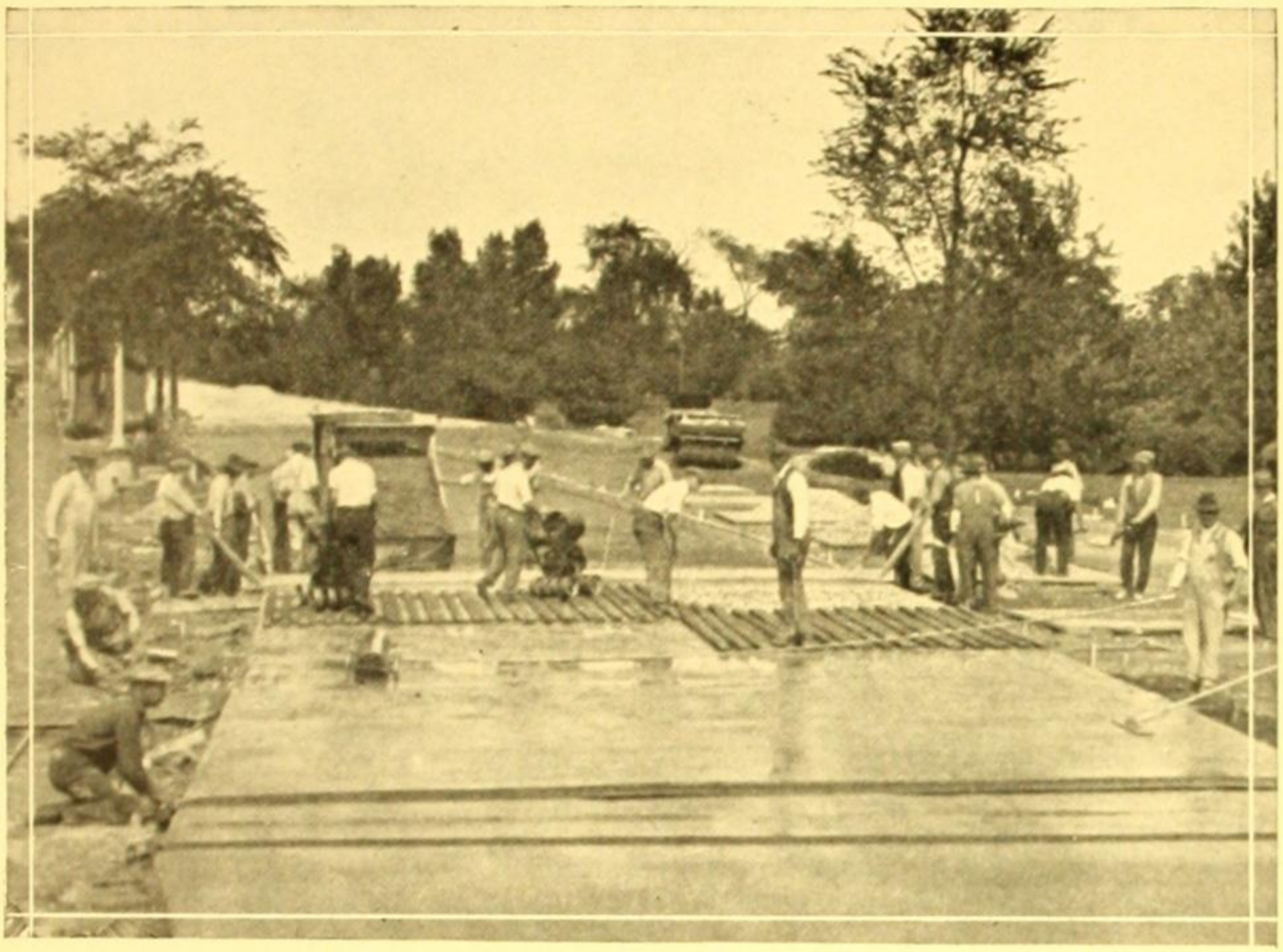
Belting. This operation gives the surface a smooth, gritty, NON-SKID texture.



Edging. All edges are made compact with steel tools. No breaking down will occur under traffic.

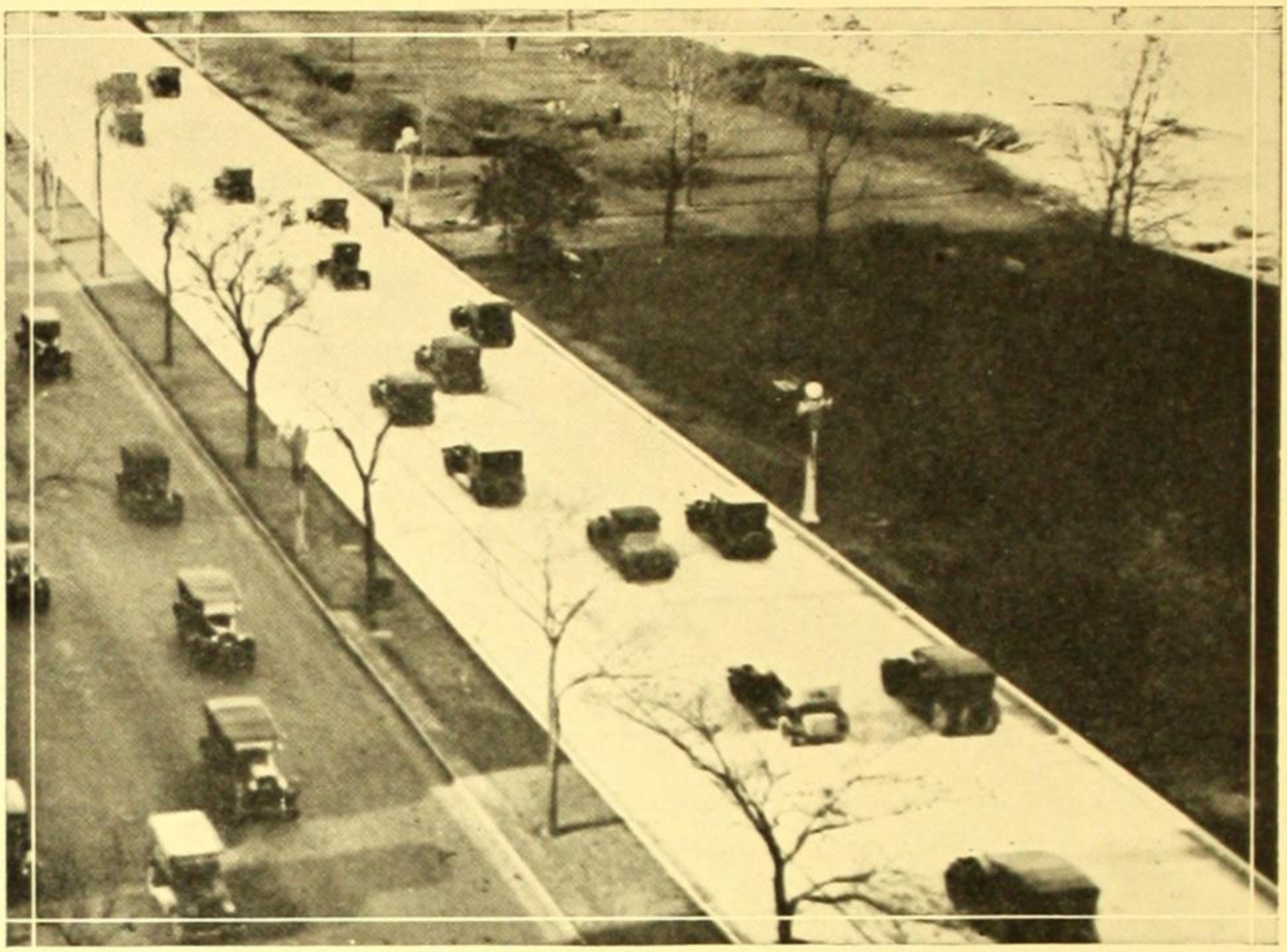
Curage. Complete hydration assured by an application of silicate of soda which seals the moisture in the slab, holding it there until maximum strength is developed.

Applying Silicate of Soda. No disagreeable mess of wet dirt, straw, etc., to annoy adjacent residents for 3 to 4 weeks during the period of curage. Vibrolithic is opened to traffic ten days after being laid when cured with Silicate of Soda.

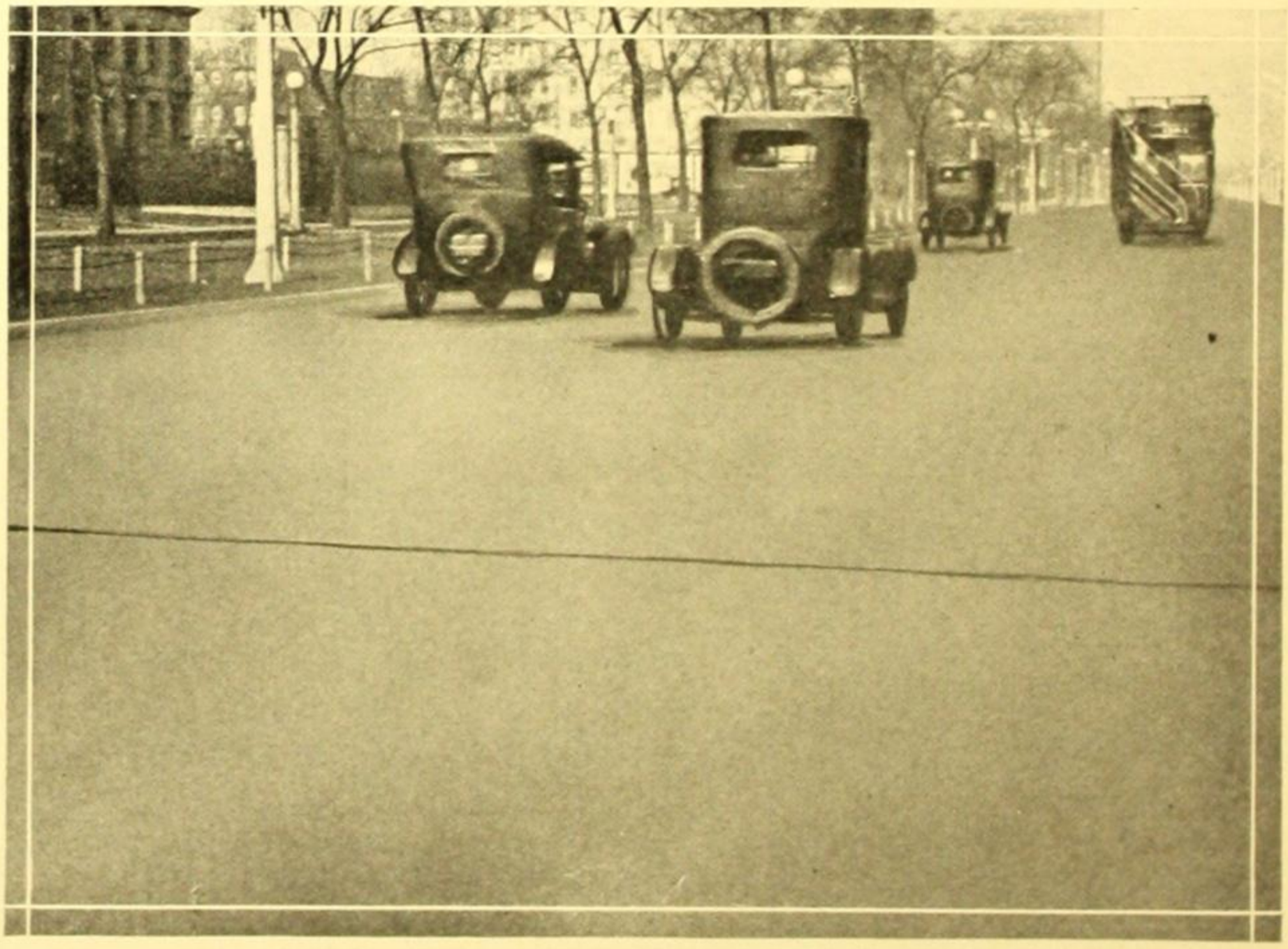


General view of Vibrolithic operation.

How Chicago celebrated opening of this drive—Part of 5000 vehicles in parade.



Sheridan Road under traffic, Fall 1923. A slab eight to nine inches thick—armor-plated with granite by the Vibrolithic method carrying over 30,000 vehicles daily—without an evidence of strain.



Sheridan Road in its second year of heavy traffic. Note perfect condition of surface, discolored by excessive traffic of over 30,000 automobiles daily.

The taxpayer in purchasing VIBROLITHIC pavement, protects his investment by securing maximum quality at minimum cost.

THE *Vibrolithic* METHOD

OF CONSTRUCTING

"Armorplated"

Portland Cement Concrete

PAVEMENT

VIBROLITHIC is a trade name significant of an advanced method of building Portland cement concrete pavements. It is not a material nor does it involve materials other than the standard aggregates. It is an improvement, a development—a proven mechanical method of obtaining ideal concrete pavements.

VIBROLITHIC insures (1) extreme density (high volume of coarse aggregate and less mortar), (2) higher beam strength of slab—consequently greater resistance to contraction, expansion and impact, and (3) maximum resistance to surface wear.

The Vibrolithic Method is a complete service. Every square yard of pavement is constructed under the direct supervision of skilled Vibrolithic operatives—an inspection service worth many times its cost to taxpayers.

VIBROLITHIC does not introduce new material, delay the work or make costly demands on the contractor. It is a proven mechanical method of improving concrete construction, adding years to the life of pavements without costly maintenance.

For further particulars write

(5-3-25)